WHAT IS CLAIMED IS

1. A chip-device for holding living cells, the device comprising a carrier having a plurality of wells disposed on a surface each well configured to hold at least one living cell, the device characterized in that said wells are configured to influence the proliferation of living cells held in said wells.

2. The device of claim 1, wherein the inside of said wells comprises a material selected from the group consisting of a gel, a hydrogel, polydimethylsiloxane, an elastomer, polymerized para-xylylene molecules, polymerized derivatives of para-xylylene molecules and silicon rubber.

3. The device of claim 1, wherein said carrier is substantially made of a material selected from the group consisting of a gel, a hydrogel, polydimethylsiloxane, an elastomer and silicon rubber.

4. The device of claim 1, wherein said influence is predetermined.

5. The device of claim 1, wherein said configuration is at least one feature from amongst the six features:

(a) the inside of said wells is configured to delay cell proliferation;

(b) the inside of said wells is configured to inhibit cell proliferation;

(c) said wells are configured to allow cell proliferation inside at least one component of said chip-device;

(e) the inside of said wells is configured to delay adhesion of living cells thereto;

(f) the inside of said wells is configured to inhibit adhesion of living cells thereto; and

(g) the size of said wells is changeable.

6. The device of claim 5, wherein the size of said wells is changeable.

7. The device of claim 6, said carrier configured to be deformable in at least one dimension and that upon deformation the size of at least one of said wells is changed.

8. The device of claim 7, said carrier being elastically deformable.

9. The device of claim 8, said carrier substantially made of an elastically deformable material selected from the group consisting of elastomers, rubber and silicon rubbers.

10. The device of claim 7, said carrier being plastically deformable.

11. The device of claim 10, said carrier substantially made of a plastically deformable material selected from the group consisting of hydrocarbon wax, crystalline wax, polypropylene, isotactic polypropylene homopolymer, syndiotactic polypropylene homopolymer, metallocene catalyzed isotactic polypropylene homopolymer, metallocene catalyzed syndiotactic polypropylene homopolymer, ethylene-propylene random copolymer, butene-propylene random copolymer, ethylene-propylene-butene-1 terpolymer, low density polyethylene, linear low density polyethylene, very low density polyethylene, metallocene catalyzed polyethylene, metallocene catalyzed polyethylene copolymers, ethylene-methacrylate copolymers, ethylene-vinyl acetate copolymers, ionomer resins, an ethylene-propylene random copolymer, ethylene-butene-1 copolymer, ethylene-propylene-butene-1 terpolymer, propylene-butene copolymer, low density polyethylene, linear low density polyethylene, very low density polyethylene, metallocene catalyzed polyethylene plastomer, metallocene catalyzed polyethylene, metallocene catalyzed polyethylene copolymers, ethylene-methacrylate copolymer, ethylene vinyl acetate copolymer, ionomer resin and combinations thereof.

12. The device of claim 1, said carrier is substantially of a material having an index of refraction similar to that of water.

13. The device of claim 12, said carrier is of a material having an index of refraction less than about 1.4.

14. The device of claim 12, said carrier is of a material having an index of refraction less than about 1.38.

15. The device of claim 12, said carrier is of a material having an index of refraction less than about 1.36.

16. The device of claim 12, said carrier is of a material having an index of refraction less than about 1.35.

17. The device of claim 12, said carrier is of a material having an index of refraction less than about 1.34.

18. The device of claim 1, having at least one component made of a gel.

19. The device of claim 18, wherein said gel is substantially transparent.

20. The device of claim 18, wherein said gel is a hydrogel.

21. The device of claim 18, wherein said gel is made of a material selected from the group consisting of agar gels, agarose gels, gelatins, low melting temperature agarose gels, alginate gels, room-temperature Ca^{2+}-induced alginate gels and polysaccharide gels.

22. The device of claim 18, wherein the water content of said gel is greater than about 80% by weight.

23. The device of claim 18, wherein the water content of said gel is greater than about 92% by weight.

24. The device of claim 18, wherein the water content of said gel is greater than about 95% by weight.

25. The device of claim 18, wherein the water content of said gel is greater than about 97% by weight.

26. The device of claim 18, wherein the water content of said gel is greater than about 98% by weight.

27. The device of claim 18, wherein said gel comprises an active entity.

28. The device of claim 27, wherein said active entity is selected from the group consisting of antibodies, antigens, biological materials, chemical materials, chromatogenic compounds, drugs, enzymes, fluorescent probes, immunogenes, indicators, ligands, nucleic acids, nutrients, peptides, physiological media, proteins, receptors, selective toxins and toxins.

29. The device of claim 18, wherein said carrier is made of said gel.

30. The device of claim 18, wherein a cover for said surface is made of said gel.

31. The device of claim 30, wherein said carrier is made of a material selected from the group consisting of gels, hydrogels, agar gels, agarose gels, gelatins, low melting temperature agarose gels, alginate gels, room-temperature Ca^{2+}-induced alginate gels, polysaccharide gels, elastically deformable materials, plastically deformable materials, ceramics, epoxies, glasses, glass-ceramics, metals, plastics, polycarbonates, polydimethylsiloxane, polyethylenterephtalate glycol, polymers, polymethyl methacrylate, paraffins, polystyrene, polyurethanes, polyvinyl chloride, silicon, silicon oxide, silicon rubbers and wax.

32. The device of claim 30 wherein said carrier is made of a second gel.

33. The device of claim 32, wherein said second gel is substantially the same as said gel from which said cover is made.

34. The device of claim 32, wherein said second gel is substantially different from said gel from which said cover is made.

35. The device of claim 1, wherein the inside of said wells is configured to delay adhesion of living cells thereto.

36. The device of claim 35, wherein the inside of said well comprises a material that delays adhesion of living cells thereto.

37. The device of claim 36, wherein said carrier is substantially fashioned from said adhesion-delaying material.

38. The device of claim 36, wherein the inside of said wells is coated with said adhesion-delaying material.

39. The device of claim 36, wherein said adhesion-delaying material comprises polydimethylsiloxane.

40. The device of claim 39, wherein said adhesion-delaying material is substantially polydimethylsiloxane.

41. The device of claim 39, wherein said adhesion-delaying material is substantially pure polydimethylsiloxane.

42. The device of claim 1, wherein said wells are juxtaposed.

43. The device of claim 42, the interwell area between two said wells is less then about 0.35 the sum of the areas of said two wells.

44. The device of claim 42, the interwell area between two said wells is less then about 0.25 the sum of the areas of said two wells.

45. The device of claim 42, the interwell area between two said wells is less then about 0.15 the sum of the areas of said two wells.

46. The device of claim 42, the interwell area between two said wells is less then about 0.10 the sum of the areas of said two wells.

47. The device of claim 42, the interwell area between two said wells is less then about 0.06 the sum of the areas of said two wells.

48. The device of claim 42, wherein a rim of a said well is substantially knife-edged.

49. The device of claim 1, wherein the dimensions of said wells are less than about 200 microns.

50. The device of claim 1, wherein the dimensions of said wells are less than about 100 microns.

51. The device of claim 49, wherein the dimensions of said wells are less than about 50 microns.

52. The device of claim 49, wherein the dimensions of said wells are less than about 25 microns.

53. The device of claim 49, wherein the dimensions of said wells are less than about 10 microns.

54. The device of claim 1, wherein said wells are configured to hold no more than one living cell of a certain type.

55. The device of claim 1, wherein said wells are configured to hold a predetermined number of living cells of a certain type.

56. The device of claim 1, wherein said wells are enclosures of dimensions such that substantially an entire cell of a certain type is containable within a said enclosure, each said enclosure having an opening at said surface, said opening defined by a first cross section of a size allowing passage of a cell of said certain type.

57. The device of claim 56, wherein the volume of said enclosure is less than about 1×10^{-11} liter.

58. The device of claim 56, wherein the volume of said enclosure is less than about 1×10^{-12} liter.

59. The device of claim 56, wherein the volume of said enclosure is less than about 1×10^{-13} liter.

60. The device of claim 56, wherein the volume of said enclosure is less than about 1×10^{-14} liter.

61. The device of claim 56, wherein the volume of said enclosure is less than about 1×10^{-15} liter.

62. The device of claim 56, wherein the area of said first cross section is less than about 40000 micron^2.

63. The device of claim 56, wherein the area of said first cross section is less than about 10000 micron^2.

64. The device of claim 56, wherein the area of said first cross section is less than about 2500 micron^2.

65. The device of claim 56, wherein the area of said first cross section is less than about 625 micron^2.

66. The device of claim 56, wherein the area of said first cross section is less than about 100 micron^2.

67. The device of claim 56, wherein the dimensions of a said enclosure are such as to contain no more than one said cell of a certain size at any one time.

68. The device of claim 1, further comprising protuberances protruding from said surface between two adjacent wells.

69. The device of claim 68, wherein said protuberances are sharp.

70. The device of claim 69, wherein the area of the tip of said protuberances is less than about 0.05 micron^2.

71. The device of claim 68, wherein said protuberances are not sharp.

72. The device of claim 71, wherein the area of the tip of said protuberances is between about 0.05 micron^2 and 28 micron^2.

73. The device of claim 68, wherein the height of said protuberances is between 1 micron and 10 microns high.

74. The device of claim 1, further comprising at least one wall protruding from said surface, said at least one wall circumscribing at least one area of said surface where the points of the top edge of said wall define a plane.

75. The device of claim 74, further comprising a cover slip configured to rest on said top edge of said at least one wall so as to define at least one closed volume including more than one said well.

76. The device of claim 1, further comprising a cover slip, said cover slip and said carrier configured so as to allow said cover slip to removeably rest above said surface substantially in parallel to said surface.

77. The device of claim 76, wherein said configuration of said carrier comprises at least one wall protruding from said surface, allowing said cover slip to rest thereupon substantially in parallel to said surface.

78. The device of claim 76, wherein said configuration of said carrier comprises at least three protrusions protruding from said surface, said protrusions having substantially the same height, allowing said cover slip to rest thereupon substantially in parallel to said surface.

79. The device of claim 76, wherein said cover slip and said carrier are configured so that there exists a limited number of correct cover slip positions wherein said cover slip is substantially oriented in a specific position when resting above said surface.

80. A gel carrier, the carrier having a plurality of wells disposed on a surface each well configured to hold at least one living cell.

81. A polydimethylsiloxane carrier, the carrier having a plurality of wells disposed on a surface each well configured to hold at least one living cell.

82. A gel cover for wells of a well-bearing component having a plurality of wells disposed on a surface each well configured to hold at least one living cell.

83. A carrier comprising a first layer of a first material resting on top of a second layer of a second material, the carrier having a plurality of wells disposed on an upper surface of said first layer each of said plurality of wells configured to hold at least one living cell, wherein the bottom of said plurality of wells is said second layer.

84. The carrier of claim 83, wherein said second material is selected from the group consisting of ceramics, epoxies, glasses, glass-ceramics, metals, plastics, polycarbonates, polydimethylsiloxane, polyethylenterephtalate glycol, polymers, polymethyl methacrylate, polystyrene, polyurethanes, polyvinyl chloride, silicon and silicon oxide.

85. The carrier of claim 83, wherein said first material is a fixed photoresist material.

86. A carrier comprising a plurality of wells disposed on a surface each well configured to hold at least one living cell, the carrier characterized in that bottoms of said wells are flat.

87. The carrier of claim 86, wherein said carrier comprises a feature in addition to said wells.

88. The carrier of claim 87, wherein said feature is selected from the group consisting of channels, fluid channels, fluid reservoirs, microreactors, passages, plumbing routes, protruberances, transport channels and walls.

89. The carrier of claim 87, wherein said feature has a flat bottom.

90. A chip-device for holding living cells, the device comprising a carrier having a plurality of wells disposed on a surface each well configured to hold at least one living cell, the device characterized in that said carrier is made of a material having an index of refraction similar to that of water.

91. The device of claim 90, said carrier is of a material having an index of refraction less than about 1.4.

92. The device of claim 90, said carrier is of a material having an index of refraction less than about 1.38.

93. The device of claim 90, said carrier is of a material having an index of refraction less than about 1.36.

94. The device of claim 90, said carrier is of a material having an index of refraction less than about 1.35.

95. The device of claim 90, said carrier is of a material having an index of refraction less than about 1.34.

96. The device of claim 90, wherein said carrier is made of a gel.

97. The device of claim 96, wherein said gel is substantially transparent.

98. The device of claim 96, wherein said gel is a hydrogel.

99. The device of claim 96, wherein said gel is made of a material selected from the group consisting of agar gels, agarose gels, gelatins, low melting temperature agarose gels, alginate gels, room-temperature Ca^{2+}-induced alginate gels and polysaccharide gels.

100. The device of claim 96, wherein the water content of said gel is greater than about 80% by weight.

101. The device of claim 96, wherein the water content of said gel is greater than about 92% by weight.

102. The device of claim 96, wherein the water content of said gel is greater than about 95% by weight.

103. The device of claim 96, wherein the water content of said gel is greater than about 97% by weight.

104. The device of claim 96, wherein the water content of said gel is greater than about 98% by weight.

105. A device for holding living cells, the device comprising:

(a) a well-bearing component having a plurality of wells disposed on a surface, each well configured to hold at least one living cell; and

(b) a cover covering said surface, said cover substantially made of a gel.

106. The device of claim 105, wherein said gel is substantially transparent.

107. The device of claim 105, wherein said gel is a hydrogel.

108. The device of claim 107, wherein said gel is made of a material selected from the group consisting of agar gels, agarose gels, gelatins, low melting temperature agarose gels, alginate gels, room-temperature Ca^{2+}-induced alginate gels and polysaccharide gels.

109. The device of claim 105, wherein said gel comprises an active entity.

110. The device of claim 109, wherein said active entity is selected from the group consisting of antibodies, antigens, biological materials, chemical materials, chromatogenic compounds, drugs, enzymes, fluorescent probes, immunogenes, indicators, ligands, nucleic acids, nutrients, peptides, physiological media, proteins, receptors, selective toxins and toxins.

111. The device of claim 105, wherein the water content of said gel is greater than about 80% by weight.

112. The device of claim 105, wherein the water content of said gel is greater than about 92% by weight.

113. The device of claim 105, wherein the water content of said gel is greater than about 95% by weight.

114. The device of claim 105, wherein the water content of said gel is greater than about 97% by weight.

115. The device of claim 105, wherein the water content of said gel is greater than about 98% by weight.

116. The device of claim 105, wherein the dimensions of said wells are less than about 200 microns.

117. The device of claim 105, wherein the dimensions of said wells are less than about 100 microns.

118. The device of claim 105, wherein the dimensions of said wells are less than about 50 microns.

119. The device of claim 105, wherein the dimensions of said wells are less than about 25 microns.

120. The device of claim 105, wherein the dimensions of said wells are less than about 10 microns.

121. A method of making a chip-device of claim 1 comprising:

(a) providing a template having a negative of features of said surface of said carrier;

(b) contacting said template with a precursor material so as to create said features in said precursor material; and

(c) fixing said features in said precursor material so as to fashion said carrier.

122. The method of claim 121, wherein said fixing comprises a methods selected from heating said precursor material, cooling said precursor material, polymerizing said precursor material, cross-linking said precursor material, curing said precursor material, irradiating said precursor material, illuminating said precursor material, gelling said precursor material, exposing said precursor material to a fixative and waiting a period of time.

123. The method of claim 121, wherein said template is made of a material selected from the group consisting of elastically deformable materials, plastically deformable materials, ceramics, epoxies, glasses, glass-ceramics, metals, plastics, polycarbonates, polydimethylsiloxane, polyethylenterephtalate glycol, polymers,

polymethyl methacrylate, paraffins, polystyrene, polyurethanes, polyvinyl chloride, silicon, silicon oxide, silicon rubbers and wax.

124. The method of claim 121, wherein said features are selected from the group of features consisting of said wells, channels, coupling elements, drains, fluid channels, fluid reservoirs, input ports, light sources, magnetizable elements, membranes, microreactors, microvalves, passages, optical components, optical fibers, optical filters, output ports, plumbing routes, protruberances, pumps, transport channels, valves, walls and fiducial points.

125. The method of claim 121, wherein one said feature is a fiducial point and further comprising:

(d) prior to (c), adding a marking material to said fiducial point.

126. The method of claim 125, wherein said marking material is selected from the group consisting of metals, fluorescent materials and visible materials.

127. The method of claim 125, further comprising:

(d) prior to (c) applying said marking material onto the respective negative of said fiducial point.

128. The method of claim 121, further comprising:

(d) subsequent to (c), separating said template from said carrier; and

(e) attaching to said carrier an additional chip-device component.

129. The method of claim 128, wherein said additional chip-device component is selected from the group consisting of cover slips, piping, tubing, pumps, fluid supplies and observation components.

130. The method of claim 121, wherein said precursor material is a plastically deformable precursor material and said fixing said features comprises separating said template from said precursor material.

131. The method of claim 121, wherein said plastically deformable precursor material is selected from the group consisting of wax, paraffins, plastics, thermoset materials and polymers.

132. The method of claim 121, wherein said precursor material is an elastic precursor material.

133. The method of claim 121, wherein said elastic precursor material is selected from the group consisting of gellable fluids, polymerizable materials, powders and fluids and thermoplastic materials.

134. The method of claim 133, wherein said elastic precursor material is a thermoplastic material at plastic temperature and wherein fixing said features comprises cooling said thermoplastic material.

135. The method of claim 132, wherein said elastic precursor material is a polymerizable material and wherein fixing said features comprises polymerizing said polymerizable material.

136. The method of claim 135, wherein said polymerizable material is selected from the group consisting of monomer solutions, crosslinkable polymers, vulcanizable polymers, polymerizable fluid and thermosetting resins.

137. The method of claim 136, wherein said polymerizable material is a polydimethylsiloxane precursor mixture and said fixing said features comprises polymerizing said polydimethylsiloxane precursor mixture so as to produce polydimethylsiloxane.

138. The method of claim 136, wherein said polymerizable material includes urethane and said fixing said features comprises polymerizing said urethane to produce polyurethane.

139. The method of claim 132, wherein said elastic precursor material is a gellable fluid and wherein fixing said features comprises gelling said gellable fluid.

140. The method of claim 139, wherein said gelling said gellable fluid comprises an action selected from the group consisting of heating said gellable fluid, cooling said gellable fluid, irradiating said gellable fluid, illuminating said gellable fluid, contacting said gellable fluid with a gelling reagent and waiting a period of time for said gellable fluid to gel.

141. The method of claim 139, wherein said gellable fluid is selected from solutions containing a material selected from the group consisting of agars, agaroses, gelatins, low melting temperature agaroses, alginates, room-temperature Ca^{2+}-inducable alginates and polysaccharides.

142. The method of claim 141, wherein said gellable fluid is an alginate solution and said gelling said gellable fluid comprises contacting said gellable fluid with a gelling reagent.

143. The method of claim 142, wherein said gelling reagent comprises Ca^{2+} ions.

144. The method of claim 141, wherein said gellable fluid is a low melting temperature agarose solution and said gelling said gellable fluid comprises cooling said gellable fluid.

145. A method of making a chip-device of claim 1 comprising:

(a) providing a carrier having a plurality of wells disposed on a surface, each well configured to hold at least one living cell; and

(b) coating the inside of said wells with a layer of a material configured to influence proliferation of living cells held in said wells.

146. The method of claim 145, wherein said coating comprises:

(i) applying a precursor fluid to the inside of said wells; and

(ii) solidifying said precursor fluid so as to form said layer.

147. The method of claim 146, wherein said solidifying comprises a method selected from heating said precursor fluid, cooling said precursor fluid, polymerizing said precursor fluid, cross-linking said precursor fluid, curing said precursor fluid, irradiating said precursor fluid, illuminating said precursor fluid, gelling said precursor fluid, exposing said precursor fluid to a fixative and waiting a period of time.

148. The method of claim 145, wherein said coating comprises:

(i) depositing a vapor of said material onto the inside of said wells thereby forming said layer.

149. The method of claim 145, wherein said coating comprises:

(i) depositing a vapor of a precursor material onto the inside of said wells; and

(ii) solidifying said precursor material thereby forming said layer.

150. The method of claim 149, wherein said solidifying comprises a method selected from heating said precursor material, cooling said precursor material, polymerizing said precursor material, cross-linking said precursor material, curing said precursor material, irradiating said precursor material, illuminating said precursor material, gelling said precursor material, exposing said precursor material to a fixative and waiting a period of time.

151. The method of claim 149, wherein said vapor is a vapor of para-xylylene molecules or derivatives thereof and said layer comprises polymerized said para-xylylene molecules or derivatives thereof.

152. The method of claim 145, wherein said surface is made of a material selected from the group consisting of elastically deformable materials, plastically deformable materials, ceramics, epoxies, glasses, glass-ceramics, metals, plastics, polycarbonates, polydimethylsiloxane, polyethylenterephtalate glycol, polymers,

polymethyl methacrylate, polystyrene, polyurethanes, polyvinyl chloride, silicon, silicon oxide and silicon rubbers.

153. A method of manipulating cells, comprising:

(a) providing a plurality of wells of a well-bearing component, each well configured to hold at least one living cell;

(b) holding a plurality of living cells in a plurality of said wells;

(c) placing a gellable fluid in proximity with said surface so as to fill said plurality of wells; and

(d) gelling said gellable fluid so as to form a gel cover.

154. The method of claim 153, wherein said well-bearing component is a carrier.

155. The method of claim 153, wherein said well-bearing component is a carrier of claim 1.

156. The method of claim 155, wherein said carrier is substantially made of a gel.

157. The method of claim 153, wherein said placing comprises:

(i) placing a plurality of cells in a gellable fluid in the proximity of said wells; and

(ii) causing said cells to settle into said wells so as to be held in respective wells.

158. The method of claim 157, wherein said causing said cells to settle comprises applying a force to said cells.

159. The method of claim 158, wherein said force is gravitation.

160. The method of claim 158, wherein said force is a centrifugal force.

161. The method of claim 158, wherein said force is a force resulting from the impact of photons.

162. The method of claim 158, wherein said force is a force resulting from a pressure wave.

163. The method of claim 153, wherein said gelling said gellable fluid comprises an action selected from the group consisting of heating said gellable fluid, cooling said gellable fluid, irradiating said gellable fluid, illuminating said gellable fluid, contacting said gellable fluid with a gelling reagent and waiting a period of time for said gellable fluid to gel.

164. The method of claim 163, wherein said gellable fluid is selected so as to form a hydrogel upon said gelling.

165. The method of claim 163, wherein said gellable fluid is selected so as to form a transparent gel upon said gelling.

166. The method of claim 153, wherein said gellable fluid is selected from solutions containing a material selected from the group consisting of agars, agaroses, gelatins, low melting temperature agaroses, alginates, room-temperature Ca^{2+}-inducable alginates and polysaccharides.

167. The method of claim 153, wherein said gellable fluid is an alginate and said gelling said gellable fluid comprises contacting said gellable fluid with a gelling reagent.

168. The method of claim 153, wherein said gellable fluid is a low melting temperature agarose and said gelling said gellable fluid comprises cooling said gellable fluid.

169. The method of claim 153, wherein said wells are juxtaposed.

170. The method of claim 153, wherein prior to (d) each of said plurality of wells holds no more than one cell.

171. The method of claim 153, wherein the inside of said wells is a proliferation-delaying surface.

172. The method of claim 171, wherein the inside of said wells is a gel.

173. The method of claim 172, where said gel is a hydrogel.

174. The method of claim 171, wherein said proliferation-delaying surface is an adhesion-delaying surface.

175. The method of claim 174, wherein said adhesion-delaying surface comprises polydimethylsiloxane.

176. The method of claim 174, wherein said adhesion-delaying surface is substantially polydimethylsiloxane.

177. The method of claim 174, wherein said adhesion-delaying surface is substantially pure polydimethylsiloxane.

178. The method of claim 153, further comprising:

(e) subsequent to (d), isolating at least one cell by excising said at least one said cell from said well-bearing component.

179. The method of claim 153, wherein said gellable fluid comprises an active entity.

180. The method of claim 179, wherein said active entity is selected from the group consisting of antibodies, antigens, biological materials, chemical materials, chromatogenic compounds, drugs, enzymes, fluorescent probes, immunogenes,

indicators, ligands, nucleic acids, nutrients, peptides, physiological media, proteins, receptors, selective toxins and toxins.

181. The method of claim 153, further comprising:

(e) subsequent to said gelling, contacting an active entity-containing fluid with said gel cover.

182. The method of claim 181, wherein said active entity is selected from the group consisting of antibodies, antigens, biological materials, chemical materials, chromatogenic compounds, drugs, enzymes, fluorescent probes, immunogenes, indicators, ligands, nucleic acids, nutrients, peptides, physiological media, proteins, receptors, selective toxins and toxins.

183. The method of claim 181, further comprising:

(f) waiting a period of time so as to allow said active entity to diffuse through said gel cover.

184. The method of claim 153, further comprising:

(e) subsequent to (d), allowing said cells to proliferate into said well-bearing component.

185. The method of claim 153, further comprising:

(e) subsequent to (d), allowing said cells to proliferate into said gel cover.

186. A method of growing cells comprising:

(a) providing a well-bearing device;

(b) holding at least one living cell in a well of said well-bearing device; and

(c) increasing the size of said well so as to provide an increased space for proliferation of said cell.

187. The method of claim 186, wherein said well-bearing device is a chip device.

188. The method of claim 186, wherein said well-bearing device is a chip device of claim 6.

189. The method of claim 186, further comprising:

(d) prior to (c), holding a plurality of living cells in a plurality of wells of said well-bearing device; and

(e) increasing the size of said wells so as to provide an increased space for proliferation of said held living cells.

190. The method of claim 189, wherein during (d) each of said plurality of wells holds no more than one cell.

191. The method of claim 189, wherein said discarding comprises physically moving at least one of said non-selected cells.

192. The method of claim 189, wherein said discarding comprises damaging at least one of said non-selected cells.

193. A method of collecting cells from a biological sample comprising:

(a) providing a well-bearing device, said well-bearing device having:

(i) a plurality of wells disposed on a surface, each well configured to hold at least one cell; and

(ii) a plurality of protuberances protruding from said surface

(b) contacting the biological sample with said surface so as to remove cells from the biological sample.